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APPLICATION ELEMENTS

ACCOMPANYING APPLICATION PARTS

1. ☒ Fee Transmittal Form
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2. ☒ Specification [Total Pages 45]
(preferred arrangement set forth below)
 - Descriptive title of the Invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
3. ☒ Drawing(s) (35 USC 113) [Total Sheets 21]
4. ☒ Oath or Declaration [Total Pages 3]
 - a. ☒ Newly executed (original or copy) ☐ Unexecuted
 - b. ☐ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 18 completed)
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SPECIFICATION

660330 0904160

NETWORK FACSIMILE APPARATUS

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a network facsimile
5 apparatus capable of performing transmission and reception of
facsimile data and e-mail data connecting to a PSTN and a
network such as the internet or LAN.

Description of the Related Art

10 Recently, it has been performed to connect a personal
computer, work station, FAX server or the like to a network
in order to transmit and receive an e-mail and facsimile and
to browse homepages.

FIG.1 illustrates a system structure of the case of
15 performing facsimile transmission and reception using a FAX
server. The reception operation at a client machine (personal
computer) will be described next. FAX modem 1001 receives a
call from the PSTN and fetches image data to transmit to FAX
server 1002. FAX server software operating at FAX server 1002
20 receives the image data, and stores the image data as an image
data file at file server 1003 through the network. At this
point, the storage of facsimile received data is finished.

To fetch the received image data into client machine 1004,
a user starts a dedicated application at client machine 1004
25 and reads out the image data from file server 1003 through the
network.

Further, a method of reusing facsimile received data by

combining an internet FAX and a WWW server has been recently proposed. The method utilizes the function of the internet FAX which converts data received from the PSTN into an e-mail.

FIG.2 illustrates a system structure of the case of
5 performing facsimile transmission and reception using an internet FAX and a WWW server. The reception operation at the client machine will be described.

Image data received at internet FAX 1101 via the PSTN is converted into an attached file format to an e-mail at
10 internet FAX 1101 and is transmitted to WWW server 1103 as an attached file of e-mail.

The e-mail with the attached file transferred from internet FAX 1101 is received at e-mail server 1102 via a network. The e-mail with the attached file received at e-
15 mail server 1102 is transferred to WWW server 1103 that is a destination again via the network.

WWW server 1103 stores the attached file of e-mail as image data to link to a homepage for facsimile reception. The storage of facsimile received data is finished at this point.

20 In order to fetch received data into client machine 1104, a user starts a WWW browser at client machine 1104 and accesses to the homepage for facsimile reception at WWW server 1103. The user reads out an image data file at client machine 1104 via the network from WWW server 1103.

25 However, in the system using the above described FAX server, since image data is transferred from the FAX server to the file server and further transferred from the file server

to the client machine until the client machine receives facsimile received data, there is a problem that network traffic is increased.

In addition, in the system using the above described FAX server and the WWW server, since image data is transferred from the internet FAX to the e-mail server, further transferred from the e-mail server to the WWW server, and furthermore transferred from the WWW server to the client machine until the client machine receives facsimile received data, there is a problem that network traffic is increased. Since image data attached to e-mail has a data capacity approximately 1.3 times that of binary data, the network traffic is further increased.

SUMMARY OF THE INVENTION

An object of the present invention is to provide a network facsimile apparatus which is able to decrease network traffic caused by data transmission.

The present invention provides a network facsimile apparatus which has a WWW sever inside the apparatus, and is able to generate a structured document of reception list to provide to a client in homepage format in order to provide received data selected in the reception list to the client.

Further, the present invention provides a network facsimile apparatus which is able to provide a received document (reception list) from the WWW server installed inside the network facsimile apparatus, to display a structured document for address book or device setting to a client, and

to easily rewrite the structured document for address book or device setting in response to a request from the client.

BRIEF DESCRIPTION OF THE DRAWINGS

5 The above and other objects and features of the invention will appear more fully hereinafter from a consideration of the following description taken in connection with the accompanying drawing wherein one example is illustrated by way of example, in which;

10 FIG.1 is a configuration diagram of facsimile transmission and reception system using a FAX server;

 FIG.2 is a configuration diagram of facsimile transmission and reception system using an internet FAX and a WWW server;

15 FIG.3 is a function block diagram of a network facsimile apparatus according to an embodiment of the present invention;

 FIG.4 is a configuration diagram of a system in which the network facsimile apparatus according to the above embodiment is connected to a client machine;

20 FIG.5 is a function block diagram illustrating a flow of a part of processing in the network facsimile apparatus according to the above embodiment;

 FIG.6 is a flowchart of an operation to generate a reception list in the network facsimile apparatus according to the above embodiment;

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 FIG.7 is a structure diagram of a reception list management table;

FIG.8 is a diagram illustrating a data example of a source file of a reception list html;

FIG.9 is a flowchart of an operation for transmitting data received and stored at the network facsimile apparatus according to the above embodiment;

FIG.10 is a diagram illustrating a file relation table of HTML files managed by the network facsimile apparatus according to the above embodiment;

FIG.11 is a structure diagram of a homepage main page provided by the network facsimile apparatus according to the above embodiment;

FIG.12 is a flowchart illustrating an operation of a WWW server communication section in the network facsimile apparatus according to the above embodiment;

FIG.13 is a flowchart illustrating an operation of a document list generating section in the network facsimile apparatus according to the above embodiment;

FIG.14 is a structure diagram of an internet received document page provided by the network facsimile apparatus according to the above embodiment;

FIG.15 is a structure diagram of a reception list delete page provided by the network facsimile apparatus according to the above embodiment;

FIG.16 is a structure diagram of a reception list edit page provided by the network facsimile apparatus according to the above embodiment;

FIG.17 is a structure diagram of a reception list move

page provided by the network facsimile apparatus according to the above embodiment;

FIG.18 is a structure diagram of an address book page provided by the network facsimile apparatus according to the
5 above embodiment;

FIG.19 is a structure diagram of an address book add page provided by the network facsimile apparatus according to the above embodiment;

FIG.20 is a structure diagram of an address book delete
10 page provided by the network facsimile apparatus according to the above embodiment;

FIG.21 is a structure diagram of an address book edit page provided by the network facsimile apparatus according to the above embodiment;

15 FIG.22 is a flowchart of address book processing in the network facsimile apparatus according to the above embodiment;

FIG.23 is a structure diagram of a storage period setting page for user setting provided by the network facsimile apparatus according to the above embodiment; and

20 FIG.24 is a flowchart of a delete operation of file management section in the network facsimile apparatus according to the above embodiment.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

25 FIG.3 illustrates a function block diagram of a network facsimile apparatus according to this embodiment. ROM 2, RAM 3 and external storage 4 are connected to CPU 1 that operates

by an operating system and is accessible to ROM 2, RAM 3 and external storage 4. Various programs such as processing program for a server side are stored at ROM 2. RAM 3 is used, for example, as a working area of programs stored in ROM 2.

5 Compressed image data and HTML files are stored at external storage 4.

In addition, the network facsimile apparatus according to this embodiment has scanner 5, printer 6, panel section 7, compression/expansion section 8, FAX/speech communication section 9 and network controller 10 which operate under the control of CPU 1.

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The network facsimile apparatus performs scanning of image data of, for example, document by scanner 5, and performs printing of scanned imaged and received imaged data at printer 6. A user is able to perform operations such as an instruction to scan image data and an enter of destination address using panel section 7. Compression/expansion section 8 performs expansion of received image data and compression of scanned image data. FAX/speech communication section 9 performs facsimile communication and speech communication connecting to a PSTN. Network controller 10 performs the internet communication connecting to a network.

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The programs stored in ROM 2 includes each program for HTML file generating section 11, WWW server section 12, e-mail communication section 13 and TIFF conversion section 14. Although each function of HTML file generating section 11, WWW server section 12, e-mail communication section 13 and TIFF

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conversion section 14 is provided under the respective program executed by CPU 1, the respective function will be described using respective numeral symbol provided to the respective program as illustrated in FIG.3 as a matter of accommodation.

5 HTML file generating section 11 is a function block that converts lists of image data received by facsimile and e-mail and other data into HTML files readable on a homepage to register to a server.

10 WWW server section 12 provides a server function of, for example, performing communication with a WWW browser in accordance with HTTP protocol to exchange homepage data (HTML file).

15 E-mail communication section 13 performs transmission and reception of e-mail via a network, while functions as an e-mail server. In addition, TIFF conversion section 14 provides a function of converting coded facsimile data and document file data into TIFF format.

20 FIG.4 illustrates a system configuration in the case of connecting a network facsimile apparatus according to this embodiment to a PSTN and a network. In FIG.4, network facsimile apparatus 201 is connected to the PSTN while connected to the network through a network interface. It is possible to browse at client machine 202 a homepage provided at network facsimile apparatus 201 by operating a WWW browser
25 at client machine 202.

FIG.5 illustrates a function block diagram for HTML file generating section 11, WWW server section 12, e-mail

communication section 13, TIFF conversion section 14 and FAX/speech communication section 9 and a flow of data processing between the blocks.

In WWW server section 12, WWW server communication
5 section 31 communicates with a WWW browser operating at client machine 202 in accordance with HTTP protocol. A command received at www server communication section 31 from client machine 202 is analyzed at CGI string analysis section 32.

When a character sequence for the CGI processing is
10 detected in the received data, CGI string analysis section 32 provides the received data to CGI application deciding section 33 and starts corresponding CGI application 34. CGI application 34 decodes the URL encoded received data to execute the predetermined processing. CGI application 34 includes
15 applications for, for example, transmission, processing such as delete, edit and move for HTML document, generation of address book, and device setting.

File providing section 35 receives a file, whose file request is provided from client machine 202, from a file
20 management section 36 to provide to WWW server communication section 31. When the file request does not requires the CGI processing, file providing section 35 requires a corresponding file to file management section 36.

HTML file generating section 11 has document list
25 generating section 37 that generates a HTML file of document list and address book generating section 38 that generates a HTML file of address book.

Document list generating section 37 generates a HTML file of reception list indicative of received e-mail and received FAX and performs a delete, edit and move of a part of the HTML file according to an instruction provided from CGI application
5 34 and received data.

Address book generating section 38 modifies the HTML file of address book according to an instruction from the address book CGI application and received data. Further, address book generating section 38 executes processing to incorporate the
10 latest address table data into the HTML file of address book when power is turned on and the content of the address book is changed.

In addition, HTML file generating section 11 has communication result list generating section 39 and status
15 information generating section 41. Communication result list generating section 39 receives log information indicative of communication result from FAX/speech communication section 9 and e-mail communication section 13 to generate and update the HTML file indicative of the communication result list. Status
20 information generating section 41 fetches status signals indicative of respect status from scanner 5, printer 6, panel section 7 and FAX/speech communication section 9 (for example, eruption of paper stack, lack of toner and on-communication) to generate and update a HTML file in which the respective
25 statuses are registered.

FAX/speech communication section 9 and e-mail communication section 13 each has a communication control

section, storage processing section and spooler. The communication control section of FAX/speech communication section 9 is connected to the PSTN and the communication control section of e-mail communication section 13 is connected to various networks, for example, the internet as a representative, through a LAN or dial-up.

The operation of the network facsimile apparatus according to this embodiment will be described next. Hereinafter, each operation of generation of reception list, edit of reception list, box move of reception list, generation of address book and device setting will be described separately.

FIG.6 illustrates a flowchart of an operation to generate a reception list. The network facsimile apparatus registers the reception list of received data received at FAX/speech communication section 9 and e-mail communication section 13 to a homepage.

When a data reception occurs, it is decided whether the reception is performed via the PSTN or the internet (ST401). When e-mail communication section 13 receives an e-mail, the reception is performed via the internet. In this case, e-mail communication section 13 receives the e-mail (ST402). When attached data is image data in TIFF (Tag Images File Format) that is a standard format for an image file, e-mail communication section 13 stores the image data at external storage 4 providing a file name such as, for example, "mail0001.tif" (ST407). When attached data is speech data,

e-mail communication section 13 stores the speech data at external storage 4 providing a file name such as, for example, "audio0001.wav" (ST407).

On the other hand, when FAX/speech communication section 5 9 receives FAX data or speech data, the reception is performed via the PSTN. When the reception is performed via the PSTN, FAX/speech communication section 9 receives imaged data or speech data (ST403), and decides whether or not the reception data is speech data (ST404). When the received data is coded 10 image data, FAX/speech communication section 9 requests TIFF conversion section 14 to convert the coded data into TIFF format (ST405). FAX/speech communication section 9 provides a file name (for example, "fax0001.tif") to the TIFF-converted received data to store at external storage 4 (ST407). When 15 the received data is speech data, FAX/speech communication section 9 converts the speech data into digital data (ST406) and stores the speech file provided with a file name at external storage 4 (ST407).

After the received data is stored at external storage 20 4, HTML file generating section 11 adds the file name to the reception list and updates the HTML file of reception list (ST408).

The update of the HTML file of reception list will be described specifically. Document list generating section 37 25 at HTML file generating section 11 updates the HTML file of reception list. Document list generating section 37 manages a reception list table stored at external storage 4. FIG.7

illustrates an example of a structure of a reception list management table. In the reception list management table, a document file name, registered data, a sender and a title are registered for every document number that is provided in order of reception.

Document list generating section 37 receives the document file name, registered data, sender and title from FAX/speech communication section 9 or e-mail communication section 13 that receives corresponding data. Document list generating section 37 reads out the reception list through file management section 36, adds the document number to the reception list, and registers the document file name, registered data, sender and title to the reception list. Document list generating section 37 returns the reception list in which the document name and the other items of the received data are registered to the reception list table, while reads out a reception list html (HTML file of reception list).

FIG.8 illustrates a source file of reception list html generated with respect to the received data via a network. As illustrated in FIG.8, a comment line is inserted at a head for every reception list. Recognition data indicative of reception form and a document number are described at the position of the comment line. The comment line is followed by a document number, data, sender and title that are described in HTML document. An example of a structure of the reception list indicated based on the reception list html in FIG.8 is illustrated in FIG.14.

Document list generating section 37 converts a document number, data, sender and title of new received data into HTML document to generate list data. Document list generating section 37 further searches the reception list html from the head to detect the first comment line (<!--) that is the first line of the current reception list, and inserts list data of the above-described new received data to the first line of the reception list. When the updated reception list html is returned to external storage 4, the list of the new received data is registered to the homepage. Specifically, document list generating section 37 reads the HTML file that is prepared in advance to indicate a reception list page and writes a character sequence indicative of, for example, document number that is newly stored management data in the reception list table in order to edit. "00243" that is a character sequence of the edited document number is tagged with , thereby the character sequence "000243" is linked to ifax0001.tif that is the received file.

In addition, with respect to FAX reception list concerning FAX received image data and speech reception list concerning received speech data, the lists are similarly generated in HTML document.

As described above, when FAX/speech communication section 9 receives FAX data or e-mail communication section 13 receives an e-mail, since data necessary for the list generation (for example, sender and title) is input to document list generating section 37 and document list generating

section 37 reads out the HTML file of reception list from external storage 4 and adds the new data to the reception list, client machine 202 is able to obtain a supply of the latest reception list in homepage format by accessing to WWW server section 12.

An operation of transmitting data received and stored at the network facsimile apparatus to client machine 202 will be described next according to a flowchart in FIG.9.

The network facsimile apparatus is in a stand-by state until a homepage address (URL address) is entered.

Client machine 202 connected to a network starts a WWW browser (homepage browsing software) and enters the URL address of the network facsimile apparatus to access the homepage (ST701).

In the network facsimile apparatus accessed, WWW server section 12 initiates the processing through network controller 10. File providing section 35 at WWW server section 12 responds to a command for requesting a file of the homepage main page (index.html) received from client machine 202 and reads out the corresponding file from external storage 4 to return to the WWW browser at client machine 202 (ST702). FIG.10 illustrates a file relation table of the HTML files registered at external storage 4. The files needed to display the homepage are related to the file of the homepage main page.

When the WWW browser at client machine 202 receives the file of homepage main page, the WWW browser analyzes the content and transmits a command for requesting the files needed to

display the homepage to WWW server section 12 (ST703). For example, when the homepage main page illustrated in FIG.10 is displayed, the WWW browser requests files necessary for respective icon display of facsimile received document, internet received document, personal box, bulletin board document, address book, communication result report, user setting and setting list (sdoc.gif, kdoc.gif, etc. illustrated in FIG.10) to WWW server section 12.

When WWW server section 12 receives the request of files needed to display the homepage main page, WWW server 12 section transmits the files stored at external storage 4 to the WWW browser at client machine 202 (ST704). Thus, the homepage of the network facsimile apparatus is displayed on a screen of client machine 202 (ST705). The network facsimile apparatus stands by until next selection is performed.

The network facsimile apparatus awaits until an icon that is desired by a user is selected on the main page illustrated in FIG.9 displayed at client machine 202. For example, assume that "FAX reception list" is selected among from displayed data. When a "FAX reception list" icon is selected, a file request is generated for the FAX reception list that is linked to a display position of the icon (ST706).

As illustrated in FIG.10, the icon of "FAX reception list" is linked to the corresponding HTML file (fdoc.html). The WWW browser is able to display the FAX reception list using fdoc.html. When WWW server section 12 receives the file request for fdoc.html, WWW server section 12 reads out the

corresponding file from external storage 4 to transmit to client machine 202 (ST707).

The WWW browser at client machine 202 displays a page of "FAX reception list" according to the HTML file of "FAX reception list" received from WWW server section 12 (ST708).

When a user selects an indication of a desired file number among from the FAX reception list at the client machine (ST709), the network facsimile apparatus transmits an image data file (ST710). When it is not possible to display the image data on the WWW browser at the client machine 202 (for example, file0001.tif), the image data is displayed using the helper application to display the TIFF file (ST713).

The aforementioned example describes about the case of displaying FAX received data. However, when a speech file is selected, the speech data linked to the speech file is played back at a speaker of the client machine. The speech data includes speech data that the user records at a receiver of the network facsimile apparatus besides the speech data received from outside, and it is possible to link these speech data to the homepage and also to transmit toward outside.

The operation of WWW server section 12 will be described next. FIG.12 is a flowchart illustrating the operation of WWW server section 12. WWW server communication section 31 receives a request and returns a reply from/to client machine 202 via a network by operating in accordance with HTTP protocol. The types of requests that WWW server communication section 31 receives are principally separated into a file request and

CGI processing request according to a command.

The received data (request) received at WWW server communication section 31 is provided to CGI string analysis section 32. CGI string analysis section 32 analyzes the CGI string using the received data. When the CGI processing is not executed (ST100), file providing section 35 fetches the corresponding file from external storage 4 based on the document number contained in the received data to return to the client (ST101).

CGI string analysis section 32 decodes a URL encoded portion in the received data (ST102). The decoded data that is the CGI string analysis result is provided to CGI application deciding section 33. When CGI application deciding section 33 makes an error decision, for example, in the case where the decoded data requests the CGI processing but the application name is not designated (ST104), CGI application deciding section 33 provides an error notification to file providing section 35 and fetches the HTML file for the error notification from external storage 4 to transmit to the client machine (ST105).

When the error processing is not executed at ST104, the processing is executed according to the content of the CGI application. The CGI application supported by WWW server section 12 of this embodiment includes delete, edit, move of various reception lists, generation and incorporation of address book and device setting.

As a result of the decision processing by CGI application

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selected. According to the selection, the file request of the HTML file linked to the internet reception list is performed to WWW server section 12.

At external storage 4 at the server side, the HTML file
5 of the internet reception list is registered as described above, and is updated by document list generating section 37 whenever an e-mail reception is performed. In WWW server section 12, file providing section 35 requests file management section 36 to read out the corresponding file in response to the file
10 request from client machine 202, while transmits the read HTML file of the internet reception list to client machine 202.

The WWW browser at client machine 202 displays the internet reception list composed of HTML document according to the HTML file of the received internet reception list on
15 a screen.

FIG.14 illustrates a page of the internet reception list composed of the HTML document. In this embodiment, the page is composed of a list having document number, registered data, sender, title and check icon, and a frame menu in which icons
20 of send, print, delete, edit and move are lined up. It is thus possible to provide the internet received document page to a user.

A user selects a document number of operation object on the internet received document page in FIG.14. The document
25 number is selected by checking a select-box. After selecting the document number, the user selects any operation from the frame menu.

In the case of selecting a "send" icon as an operation content, it is possible to send a file of document number indicated on the reception list to a destination address. When the "send" icon is selected, the WWW browser requests a HTML document composing a send page to WWW server section 12. The send page has boxes to which a document number to be sent and an destination address (FAX number or e-mail address) are entered. When the WWW browser at the client machine acquires the HTML document of the send page, the send page is displayed on a screen based on the HTML document. A user enters the document number and destination address (FAX number or e-mail address) on the send page and then pushes a determine-button. When the determine-button is pushed, the send CGI application is selected and the browser transmits the request data in which the document number and destination address are set to WWW server section 12.

WWW server section 12 starts the send CGI application when receives the request data. The document number and destination address of the send object are provided to the corresponding communication section. For example, when the destination address is an e-mail address, the document number and the e-mail address of the destination address are input to e-mail communication section 13. E-mail communication section 13 fetches the file of the designated document number from external storage 4 through file management section 36 and makes the file an e-mail to send to the destination address.

In addition, when a user selects a "delete" icon, the

WWW browser at the client machine 202 provides the file request for the HTML file linked to the "delete" icon to WWW server section 12.

When WWW server section 12 receives the file request,
5 WWW server communication section 31 notifies file providing section 35 of a file name of the HTML file linked to the "delete" icon. File providing section 35 fetches the corresponding file from external storage 4 through file management section 36 to transmit to client machine 202. FIG.15 illustrates a
10 structure example of a HTML document page used in deleting a document number from the reception list. The document number selected previously is automatically inserted into a column for document number.

The user confirms the document number as a delete object
15 that is automatically inserted into the column for document number and then selects a determine-button. When the determine-button is selected, the delete CGI application is selected as an application type and the request data in which the document number of the delete object is set is transmitted
20 to WWW server section 12.

In addition, in the case where the user selects an "edit" icon after selecting the document number of the processing object, the WWW browser at client machine 202 provides the file request for the HTML file linked to the "edit" icon to WWW server
25 section 12.

When WWW server section 12 receives the file request, WWW server communication section 31 notifies file providing

section 35 of a file name of the HTML file linked to the "edit" icon. File providing section 35 fetches the corresponding file from external storage 4 through file management section 36 to transmit to client machine 202. FIG.16 illustrates a structure example of the HTML document page used in editing a document number, title, sender and other items of the reception list.

The document number selected previously, title and others are automatically inserted into a column for the edit object. When a determine-button is pushed, the edit CGI application is selected as an application type, and the request data in which the document number of the edit object is set is transmitted to WWW server section 12.

In addition, in the case where the user selects a "move" icon, the WWW browser at client machine 202 provides the file request for the HTML file linked to the "move" icon to WWW server section 12.

When WWW server section 12 receives the file request, WWW server communication section 31 notifies file providing section 35 of a file name of the HTML file linked to the "move" icon. File providing section 35 fetches the corresponding file from external storage 4 through file management section 36 to transmit to client machine 202. FIG.17 illustrates a structure example of the HTML document page used in moving a document number on the reception list.

The document number that is selected before the "move" icon is selected is automatically inserted into a column for

the document number. The user enters corresponding folder names into a column for a folder from which the document is moved (source folder) and another column for another folder to which the document is moved (target folder). When a
 5 determine-button is selected, the move CGI application is selected as an application type, and the request data in which the document number of the move object is set is transmitted to WWW server section 12.

As described above, the request data for requesting the
 10 CGI processing is transmitted from client machine 202 to WWW server section 12. As illustrated in the flowchart in FIG.12, in WWW server section 12, the CGI string data that is analyzed by CGI string analysis section 32 using the received data (request data) is provided to CGI application deciding section
 15 33 and a corresponding CGI application is decided.

When the delete, edit and move applications are executed, the corresponding CGI application provides an instruction and received data corresponding to the processing content to document generating section 37.

20 The above description describes about the case of performing various jobs using the internet received document page. However, it is possible to move to the various jobs using the FAX received document page by the same operation.

When an address book CGI application is executed, this
 25 CGI application provides an instruction and received data corresponding to the processing content to address book generating section 38.

When a device setting CGI application and a send CGI application are executed, an instruction and received data corresponding to the processing content are provided to file management section 36.

5 The received data is provided to document generating section 37 from the delete, edit or move CGI application . When the reception list processing is a delete, the delete CGI application provides the document number that is entered on the HTML document page in FIG.15 as received data to document
10 generating section 37 to instruct to delete the corresponding document. When the reception list processing is an edit, the edit CGI application provides the document number and edit contents that are entered on the HTML document page in FIG.16 as received data to document generating section 37 to instruct
15 to edit the corresponding document. When the reception list processing is a move, the move CGI application provides the document number, source folder number and target folder number that are entered on the HTML document page in FIG.17 as received data to document generating section 37 to instruct to move the
20 corresponding document.

FIG.13 illustrates a flowchart when document generating section 37 operates by the request data for requesting the CGI processing. The document number provided from the CGI application is searched in the HTML file of the reception list
25 (ST1101). Next, it is decided whether or not the request data instructs the edit processing (ST1102).

For example, when an edit of the internet reception list

is instructed as CGI processing, document generating section 37 reads out the HTML file of the internet reception list from external storage 4, and searches a position of the document number of the edit object. Document generating section 37
5 replaces the data of the corresponding document number (title, sender and others) with the edited data (received data) (ST1103).

The rewrite of a portion in the HTML file of the internet reception list is finished when the HTML file of the internet
10 reception list, in which the data of the corresponding document number is replaced with the edited data, is returned to external storage 4.

On the other hand, when the edit processing is not instructed, the corresponding document number is anyway
15 deleted from the current position in the reception list HTML file because the processing except for an edit is a delete or a move. Therefore, when it is decided that the processing instructed in ST1102 is not the edit, the data of the corresponding document number is deleted from the reception
20 list HTML file (ST1104).

It is next decided whether or not the CGI application instructs as the CGI processing a document move between the reception lists (for example, internet reception list to FAX reception list) (ST1105).

25 When a document move is instructed, the HTML files of source and target reception lists respectively from/to which the document is moved are both already read out from external

storage 4 at ST1101. Since the corresponding document number is already deleted in the HTML files of the source reception, the data of the corresponding document number is added to the HTML file of the target reception list (ST1106). The move of document data between the reception lists is finished when the reception list in which the data of the corresponding document number is deleted and another reception list to which the data of the corresponding document number is added are stored in external storage 4. In addition, when the move of document data is not executed, the document data is just deleted from the reception list.

As described above, since WWW server section 12 transmits the reception list operation page (delete, edit or move) in response to a request from client machine 202, client machine 20 transmits the data and operation content (delete, edit or move) that are entered by a user corresponding to the reception list operation page to WWW server section 12, and document list generating section 37 at WWW server section 12 reflects the user entered data in the HTML file of reception list corresponding to the operation content, the user is able to modify the reception list in homepage format provided from WWW server section 12.

In addition, as the premise that the address book processing is executed at ST111, the necessary data is entered on the HTML document page at client machine 202. At ST706 in the flowchart illustrated in FIG.9, an address book icon is selected instead of internet reception list icon on the main

page of the homepage (HTML document page) illustrated in FIG.11. According to this processing, the file request for the address book HTML file linked to the address book icon is provided to WWW server section 12.

5 The HTML file of address book is registered at external storage 4 at the server side. In WWW server section 12, file providing section 35 requests file management section 36 to read out an address book html in response to the file request from client machine 202, while transmits a HTML file of read
10 address book html to client machine 202.

The address book page composed of the HTML document according to the address book HTML file received by the WWW browser is displayed on a screen of client machine 202.

FIG.18 illustrates the HTML document page of address book.
15 In this embodiment, the address book page is composed of address information having name, type, address and check icon, and a frame menu with icons such as add, delete and edit lined up. A symbol indicative of FAX or e-mail is described in a column of a type. In a column of an address, a telephone number
20 is described when the type is FAX and an e-mail address is described when the type is e-mail.

When a user operates the content of the address book that is registered in homepage format at the WWW server side, the user is able to select a job corresponding to the operation
25 content among from the frame menu.

When the user selects an "add" icon, the WWW browser at client machine 202 provides a file request for the HTML file

linked to the "add" icon to WWW server section 12.

When WWW server section 12 receives the file request, WWW server communication section 31 notifies file providing section 35 of a file number of the HTML file linked to the "add" icon. File providing section 35 fetches the corresponding file from external storage 4 through file management section 36 to transmit to client machine 202. FIG.19 illustrates a structure example of a HTML document page used in adding an address from the reception list.

10 The user enters a name of an address to be added in a column of name, enters FAX or e-mail in a column of type, further enters a FAX number or e-mail address in a column of address, and then selects a determine-button. When the determine-button is selected, the address book CGI application is selected as an application type, and the request data, in which information on the address to be added is set, is transmitted to WWW server section 12.

When the user selects a "delete" icon, the WWW browser at client machine 202 provides a file request for the HTML file linked to the "delete" icon to WWW server section 12. WWW server section 12 transmits the HTML file linked to the "delete" icon to client machine 202 through the process of the case of "add".

FIG.20 illustrates a structure example of a HTML document page used in deleting an address from the address book. A user enters a name and address of the delete object respectively in columns of name and address (telephone number or e-mail

address) and then selects a determine- button. When the determine-button is selected, the address book CGI application is set as an application type, and the request data, in which the number of the delete object is set, is transmitted to WWW server section 12.

When a user selects an "edit" icon, the WWW browser at client machine 202 provides a file request for the HTML file linked to the "edit" icon to WWW server section 12.

When WWW server section 12 receives the file request, WWW server communication section 31 notifies file providing section 35 of a file number of the HTML file linked to the "edit" icon. File providing section 35 fetches the corresponding file from external storage 4 through file management section 36 to transmit to client machine 202. FIG.21 illustrates a structure example of a HTML document page used in editing a name and address in the address book. The user enters an edited name and/or address for a column of edit object, and then selects a determine- button. When the determine- button is selected, the address book CGI application is set as an application type, and the request data, in which the edit address number is set, is transmitted to WWW server section 12.

FIG.22 illustrates a flowchart when address book generating section 37 operates according to request data for requesting CGI processing. Address book generating section 38 receives an instruction indicative of the CGI processing content (add, delete and edit), and received data (name and

address) from the address CGI application, while fetches the HTML file of address book from external storage 4.

Address book generating section 38 decides whether or not the instruction indicates an add of address (ST1201), and
 5 adds added address and name to the HTML file of address book when the instruction indicates the add of address(ST1202).

On the other hand, when the instruction does not indicate an add of address, address book generating section 37 deletes the corresponding address data contained in the received data
 10 from the HTML file of address book because the processing to be executed is edit or delete (ST1203). It is next decided whether or not the instruction indicates an edit of address book (ST1204). When the instruction indicates the edit, address book generating section 37 searches the corresponding
 15 address from the HTML file and replaces the corresponding address with the edited address data and/or name (ST1205). The latest address data is thus reflected in the homepage of the address book by writing the HTML file of the changed address book into external storage 4.

20 AS described above, since WWW server section 12 is able to provide an address book in homepage format to client machine 202, and display a HTML document page to add or modify (delete or edit) an address of address book in response to a request from client machine 202 on a screen of client machine 202, and
 25 the user entered added or modified data and the operation content are provided to address book generating section 38 to be reflected in the HTML file of address file, the user is able

to add and modify the content of the address book provided in homepage format from WWW server section 12 using client machine 202.

The network facsimile apparatus has panel section 7 and
5 a short dial table in which a short dial is related to telephone number and e-mail address. When a user pushes down the short dial, the corresponding telephone number or e-mail data is read from the short dial table to be provided to FAX/speech communication section 9 or e-mail communication section 13.
10 Then, FAX/speech communication section 9 calls to the provided telephone number to transmit facsimile data, or e-mail communication section 13 transmits e-mail data to the provided e-mail address from network controller 10.

The above-described short dial table is added or modified
15 arbitrary by a user. However, the rewrite in the short dial table is not reflected in the address book in homepage format provided to the user from WWW server section 12. Therefore, another processing is necessary to correctly matches the short dial table and the content of the HTML file of address book.

20 In order to execute the processing, address book generating section 38 executes incorporation processing of the address book with the address book CGI application. When the power of the network facsimile apparatus is turned on, the data of short dial table is transferred to address book generating
25 section 38. Meanwhile, the HTML file of address book is read out from external storage 4. The telephone numbers and e-mail addresses registered in the short dial table that are

transferred are incorporated in the HTML file of address book. According to this processing, the content of the short dial table and the content of the HTML file of address book are matched. The processed HTML file of address book is returned
5 to external storage 4.

The operation to set a storage period of a document registered in the homepage will be described next. In above-described ST706, when a user setting icon is selected on the homepage main page, a file request for the HTML file
10 linked to the user setting icon is transmitted to WWW server section 12 from client machine 202. When WWW server section 12 receives the file request for the HTML file of user setting, file providing section 35 fetches the corresponding user setting html from external storage 4 to transmit to client
15 machine 202.

The WWW browser at client machine 202 displays a user setting page using the user setting html on a screen. FIG.23 illustrates a structure example of the user setting page. The user setting page is composed so that a storage period can be
20 set for every FAX received document and every network received document. 1 day, 1 week and 1 month are set as a storage period in the example illustrated in FIG.23, however it may be possible to make a structure for enabling any setting of storage period. When a user selects a storage period and a document type on
25 the user setting page and selects a setting button, the set data is transmitted to WWW server section 12 along with the CGI processing request for a device setting CGI application.

In WWW server section 12, CGI application deciding section 33 provides the CGI processing request to the device setting CGI application. The device setting CGI application provides setting data such as a storage period and a document type to file management section 36 to request a change of device setting.

File management section 36 manages storage periods of documents stored at external storage 4 (various types of HTML file, TIFF file group and speech file group). When file management section 36 receives an instruction for changing a storage period from the device setting CGI application, file management section 36 rewrites a tale in which a storage period of the corresponding type is registered according to the instruction content.

FIG.24 is a flowchart concerning a document storage management by file management section 36. File management section 36 manages storage periods on a unit basis for every document type. When file management section 36 detects that one day has passed since the data of receiving a document whose storage period is 1 day (ST1221), file management section 36 deletes the corresponding document (ST1222). When file management section 36 detects that one week has passed since the data of receiving a document whose storage period is 1 week (ST1223), file management section 36 deletes the corresponding document (ST1224). Further, when file management section 36 detects that one month has passed since the data of receiving a document whose storage period is 1 month, file management

section 36 deletes the corresponding document (ST1225).

As described above, since a document storage period (device setting) is displayed on a HTML document page designated by a user at client machine 202 in response to a request from client machine 202, and the data and device setting instruction entered by the user is provided to WWW server section 12 to be reflected in the management table in file management section 36, the document storage period (device setting) can be set using client machine 202 in the same operation as accessing to a homepage.

The present invention is not limited to the above described embodiments, and various variations and modifications may be possible without departing from the scope of the present invention.

This application is based on the Japanese Patent Application No.HEI 10-372959 filed on December 28, 1998, entire content of which is expressly incorporated by reference herein.

1. A network facsimile apparatus capable of communicating using both a telephone network and a computer network, comprising:

a mail section which transmits and receives an e-mail via the computer network;

a storage which store received data including an image received by said facsimile section and data of an e-mail received by said mail section;

wherein said web server comprising:

an interface which provides a received operation request

of an e-mail received by said mail section, and said list generating section moves the received data instructed by a user between the facsimile reception list and network reception list according to an operation request received from said client though the interface.

6. The network facsimile apparatus of claim 1, wherein said storage holds a plurality of structured documents prepared for every operation and each structured document is provided for a respective operation request including a description to display an enter page which is adapted to collect information for instructing the respective operation and another description to transmit the information collected by said enter page to said web server along with the respective operation request, and said web server transmits the structured document for the respective operation request in response to a request from the client, and instructs an operation corresponding to the operation request transmitted from the client to said list generating section while provides information for instructing an operation content attached to said operation request to said list generating section.

7. The network facsimile apparatus of claim 6, wherein said reception list document includes a description to display an operation menu in which items indicative of operations are listed and another description to request a structured document used for an operation request corresponding to an item to said web server when the item in said operation menu is selected, and said web server transmits the structured

document used for the operation request corresponding to a selected item to the client which requests the structured document by selecting the item in said operation menu.

8. A network facsimile apparatus capable of communicating
5 using both a telephone network and a computer network, said apparatus comprising:

a facsimile section which transmits and receives an image via the telephone network;

a mail section which transmits and receives an e-mail
10 via the computer network;

a web server which transmits a response to a client correspond to a request from the client that is connected to said network facsimile apparatus via said computer network;

a storage which store received data including an image
15 received by said facsimile section and data of an e-mail received by said e-mail section;

an address book generating section which generates an address document in structured document format containing a description to display an address book in which destinations
20 are listed corresponding to a respective address,
wherein said web server comprising:

a transmission section which transmits said address document or said received data in response to a request from said client; and

25 an interface which provides a received operation request to said address book generating section when said web server receives the operation request concerning said address book

from said client.

9. The network facsimile apparatus of claim 8, wherein said address book generating section adds a destination instructed by the client to the address book according to an operation request which is received from said client through the interface.

10. The network facsimile apparatus of claim 8, wherein said address book generating section deletes an address instructed by the client from said address book according to an operation request received from said client through the interface.

11. The network facsimile apparatus of claim 8, wherein said address book generating section edits a description content in said address book with respect to received data instructed by said client according to an operation request received from said client through the interface.

12. The network facsimile apparatus of claim 8, wherein said storage holds a plurality of structured documents prepared for every operation and each structured document is provided for a respective operation request including a description to display an enter page which is adapted to collect information for instructing the respective operation and another description to transmit the information collected by said enter page to said web server along with the respective operation request, and said web server transmits the structured document for the respective operation request in response to a request from the client, and instructs an operation corresponding to the operation request transmitted

from the client to said address book generating section while provides information for instructing an operation content attached to said operation request to said address book generating section.

5 13. The network facsimile apparatus of claim 12, wherein said address document includes a description to display an operation menu in which items indicative of operations are listed and another description to request a structured document used for an operation request corresponding to an item
10 to said web server when the item in said operation menu is selected, and said web server transmits the structured document used for the operation request corresponding to a selected item to the client which requests the structured document by selecting the item in said operation menu.

15 14. A network facsimile apparatus capable of communicating using both a telephone network and a computer network, comprising:

a facsimile section which transmits and receives an image via the telephone network;

20 a mail section which transmits and receives an e-mail via the computer network;

a web server which transmits a response to a client correspond to a request from the client that is connected to said network apparatus via said computer network;

25 a storage which stores received data including an image received by said facsimile section and data of an e-mail received by said mail section;

a control section which is adapted to control a device setting of said network facsimile apparatus, wherein said web server comprising:

a transmission section which transmits said received
5 data to a client in response to a request from said client;
and

an interface which provides a received operation request to said control section when said web server receives the operation request concerning said device setting from said
10 client.

15. The network facsimile apparatus of claim 14, wherein said control section sets a storage period of received data stored in said storage in response to the received operation request.

16. The network facsimile apparatus of claim 14, wherein said
15 storage holds a structured document for device setting which includes a description to display a setting page which is adapted to set a storage period of received data and another description to transmit the storage period information which is entered using said setting page and an operation request
20 concerning a device setting for the storage period to said web server, and said web server reads out said structured document for device setting requested from said client from said storage to transmit to the corresponding client.

17. A reception list controlling method in a network
25 facsimile apparatus capable of communicating using both a telephone network and a computer network, said method comprising:

storing facsimile data received from the telephone network and data received from the computer network in a storage;

generating a structured document of reception list of
5 received data;

transmitting said structured document of reception list in response to a request from a client; and

transmitting a structured document, which is linked to a program used in performing an operation related to said
10 structured document of reception list in said network facsimile apparatus, in response to a request from the client.

18. A reception list controlling method in a network facsimile apparatus capable of communicating using both a telephone network and a computer network, said method
15 comprising:

storing facsimile data received from the telephone network and data received from the computer network in a storage;

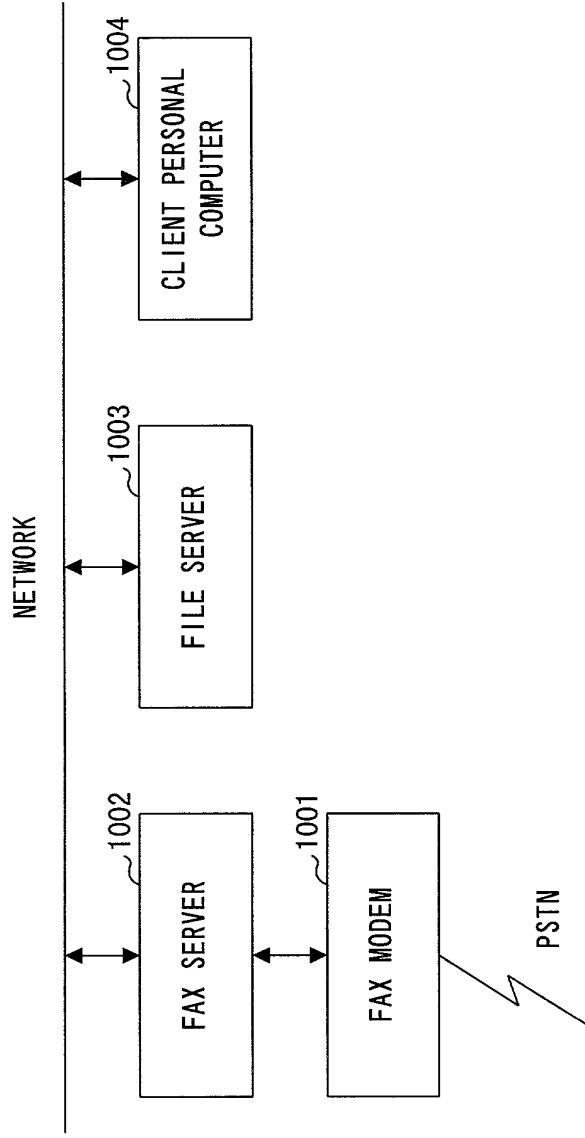
transmitting said received data or a structured document
20 of address book in response to a request from a client; and

transmitting a structured document, which is linked to a program used in performing an operation related to said structured document of address book in said network facsimile apparatus, in response to a request from the client.

25 19. A reception list controlling method in a network facsimile apparatus capable of communicating using both a telephone network and a computer network, said method

ABSTRACT OF THE DISCLOSURE

The network facsimile apparatus is able to communicate using both a public switched telephone network and a computer network, and has a facsimile section which transmits and receives an image via the public switched telephone network, a mail section which transmits and receives an e-mail via the computer network, a web server which transmits a reply to a client in response to a request from the client that is connected to said network apparatus via said computer network, a storage which is to store received, and a list generating section which generates a structured document of reception list. When the web server receives an operation request concerning a reception list from a client, the web server provides the received operation request to the list generating section.



PRIOR ART
FIG. 1

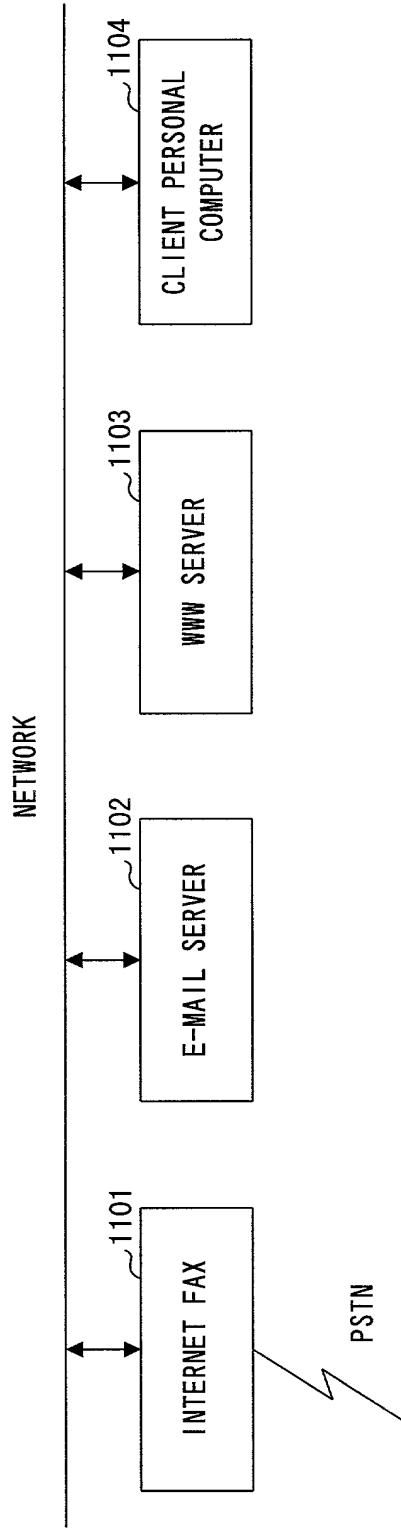


FIG. 2

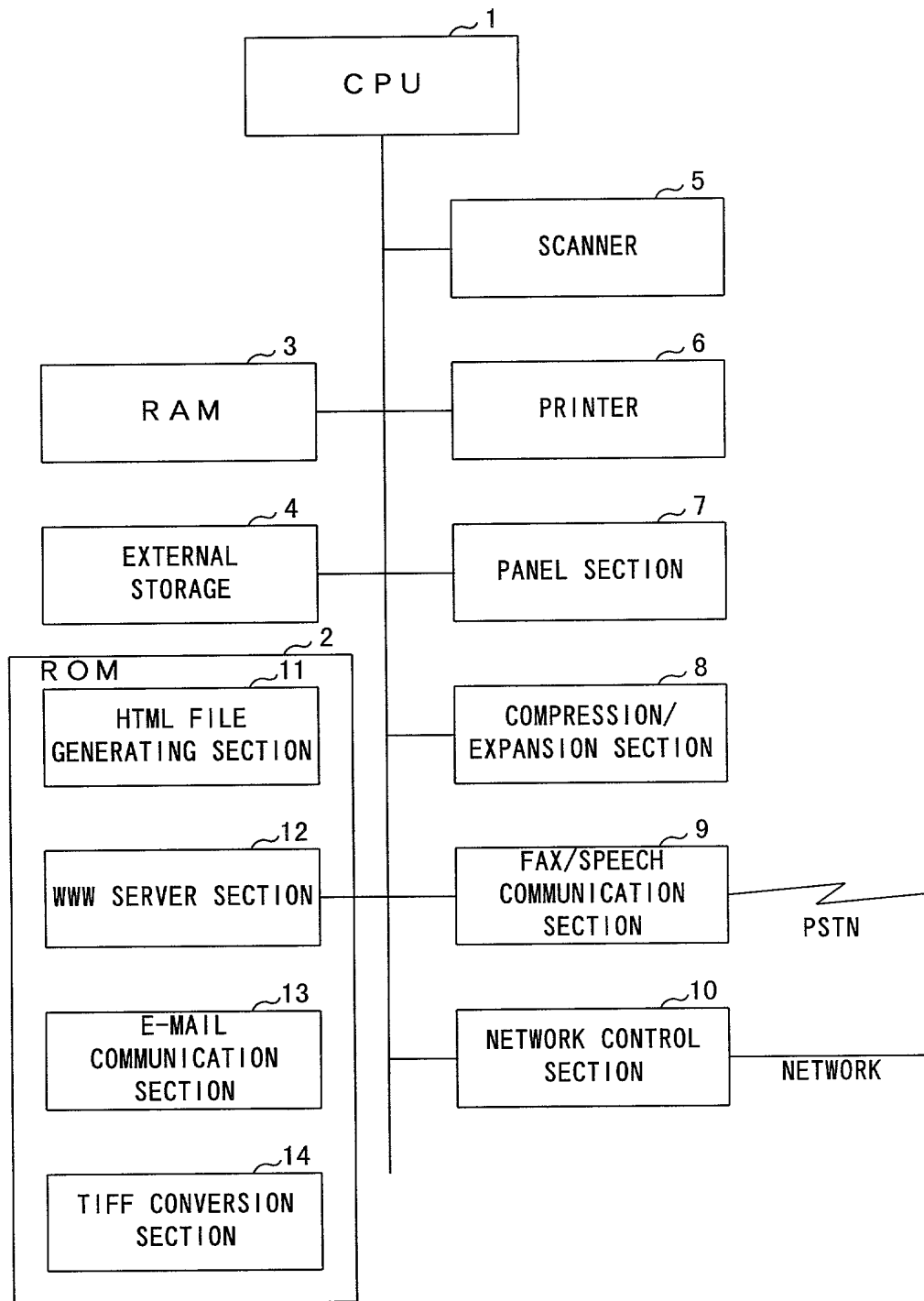


FIG. 3

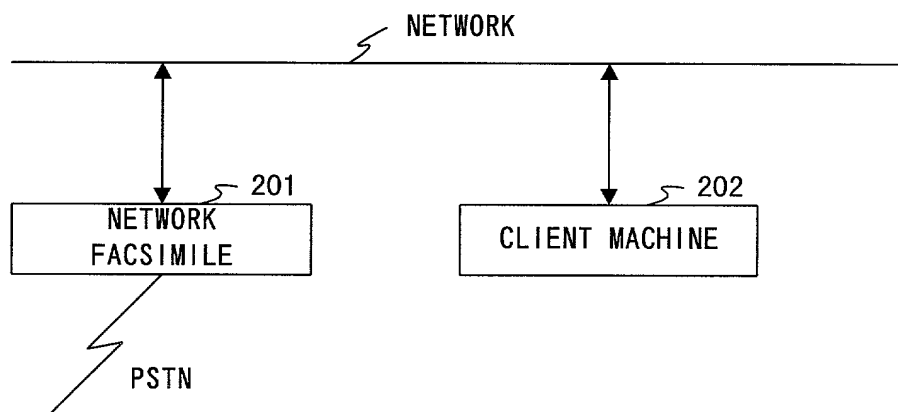


FIG. 4

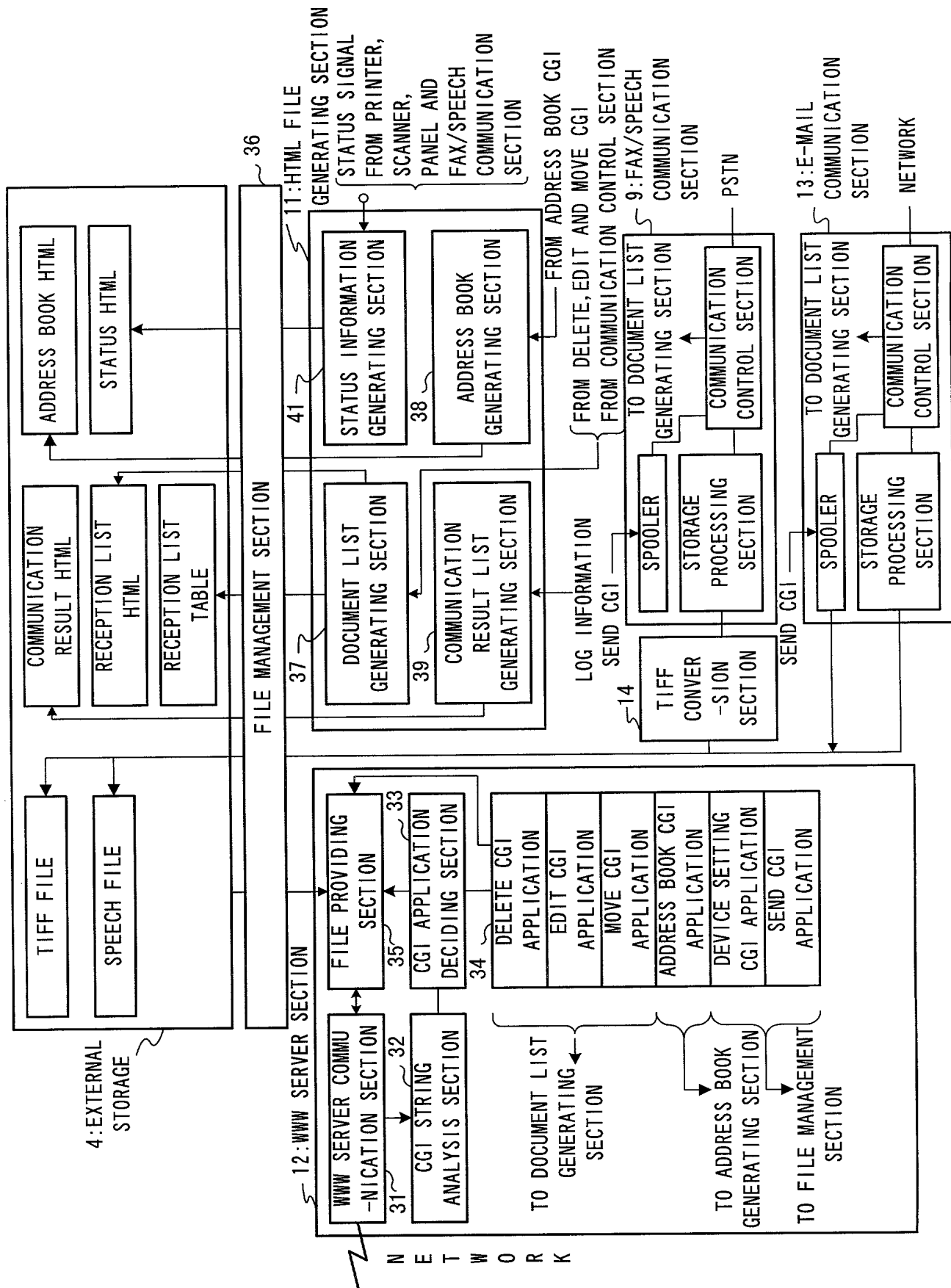


FIG. 5

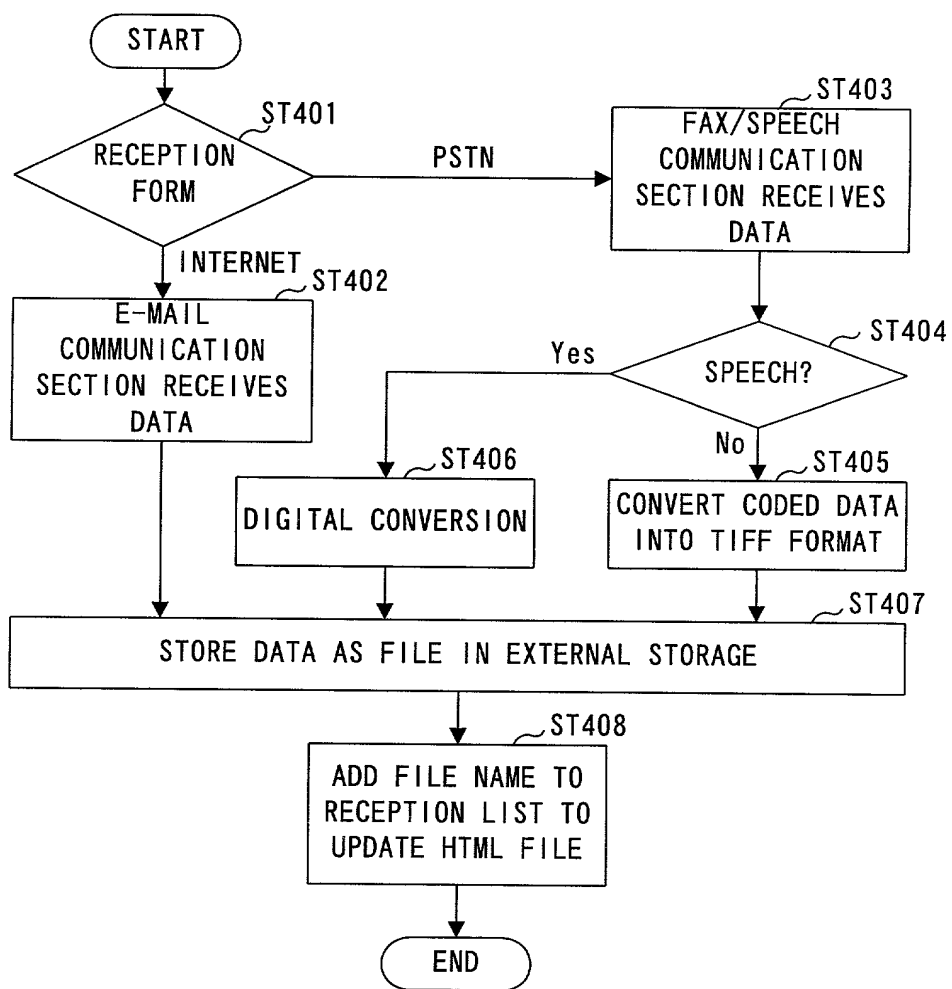


FIG. 6

Variable	Mean		SD		t		p	
	Control	Case	Control	Case	Control	Case	Control	Case
Age	24.5	24.5	1.5	1.5	0.0	0.0	0.999	0.999
Gender	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Education	12.0	12.0	1.0	1.0	0.0	0.0	0.999	0.999
Income	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Marital status	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Religion	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Occupation	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Health status	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Family size	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental education	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental income	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental occupation	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental health status	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental family size	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental education	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental income	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental occupation	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental health status	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental family size	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental education	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental income	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental occupation	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental health status	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental family size	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental education	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental income	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental occupation	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental health status	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental family size	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental education	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental income	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental occupation	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental health status	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental family size	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental parental education	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental parental income	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental parental occupation	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental parental health status	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental parental family size	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental parental parental education	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental parental parental income	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999
Parental parental parental parental parental parental parental occupation	1.0	1.0	0.0	0.0	0.0	0.0	0.999	0.999

DOCUMENT NUMBER	DOCUMENT FILE NAME	REGISTERED DATE	SENDER	TITLE
0001	fax0001.tif	1998.08.03 14:45:31	03-1234-5678	G3FAX RECEIVED DOCUMENT
0002	mail0001.tif	1998.08.05 11:30:15	ifax@abc.co.jp	MAP
0003	audio0001.wav	1998.08.13 19:15:20	03-7789-1122	TELEPHONE SPEECH

FIG. 7

```
<HTML>
<HEAD>
<TITLE>NETWORK RECEIVED DOCUMENT</TITLE>
</HEAD>
<BODY BGCOLOR="#ffffff" onLoad="focus()">
<FORM NAME="MyForm">
<INPUT TYPE="hidden" NAME="mbox" VALUE="ifax">
```

```
<Table Border="1" CellPadding="2">
<Tr><Th>SELECT</Th><Th>DOCUMENT NUMBER</Th><Th NOWRAP>
REGISTERED DATE </Th><Th> SENDER </Th><Th> TITLE </Th></Tr>
```

<pre><!-- No.000300F3 --> ←DOCUMENT NUMBER HEX <Tr><Td><INPUT TYPE="checkbox" VALUE="00243"></Td> <Td>00243</td> <Td>1998.10.07 20:45:53</Td> <Td>ifax@tora.rdmg.mgcs.mei.co.jp</Td> <Td>IMAGE from Internet FAX</Td></Tr></pre>	RECEPTION LIST FIRST LINE
<pre><!-- No.000300F0 --> <Tr><Td><INPUT TYPE="checkbox" VALUE="00240"></Td> <Td>00240</td>→DOCUMENT <Td>1998.10.07 20:14:53</Td>→DATE NUMBER <Td>ifax@eos5.rdmg.mgcs.mei.co.jp</Td>→SENDER <Td>IMAGE from Internet FAX</Td></Tr>→TITLE</pre>	RECEPTION LIST SECOND LINE
<pre><!-- No.000300ED --> <Tr><Td><INPUT TYPE="checkbox" VALUE="00237"></Td> <Td>00237</td> <Td>1998.10.07 20:08:51</Td> <Td>ifax@eos5.rdmg.mgcs.mei.co.jp</Td> <Td>IMAGE from Internet FAX</Td></Tr></pre>	RECEPTION LIST THIRD LINE
<pre><!-- No.000300EA --> <Tr><Td><INPUT TYPE="checkbox" VALUE="00234"></Td> <Td>00234</td> <Td>1998.10.07 18:00:04</Td> <Td>ifax@usagi.rdmg.mgcs.mei.co.jp</Td> <Td>IMAGE from Internet FAX</Td></Tr></pre>	RECEPTION LIST FOURTH LINE
<pre><!-- No.000300E9 --> <Tr><Td><INPUT TYPE="checkbox" VALUE="00233"></Td> <Td>00233</td> <Td>1998.10.07 17:55:35</Td> <Td>ifax@usagi.rdmg.mgcs.mei.co.jp</Td> <Td>IMAGE from Internet FAX</Td></Tr></pre>	RECEPTION LIST FIFTH LINE
<pre><!-- No.00000000 --> ←INDICATE DATA END </Table> </FORM> </BODY> </HTML></pre>	

FIG. 8

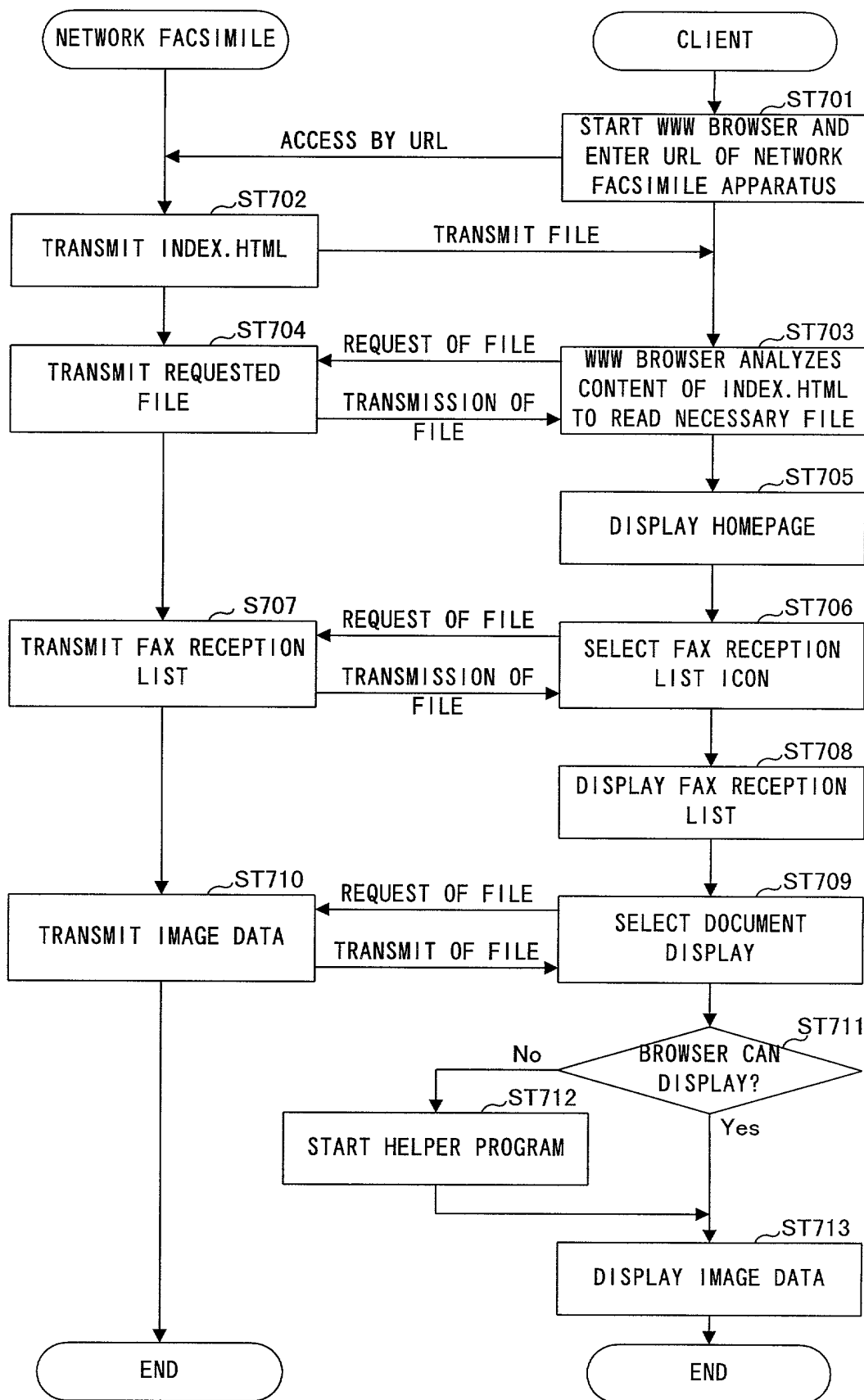


FIG. 9

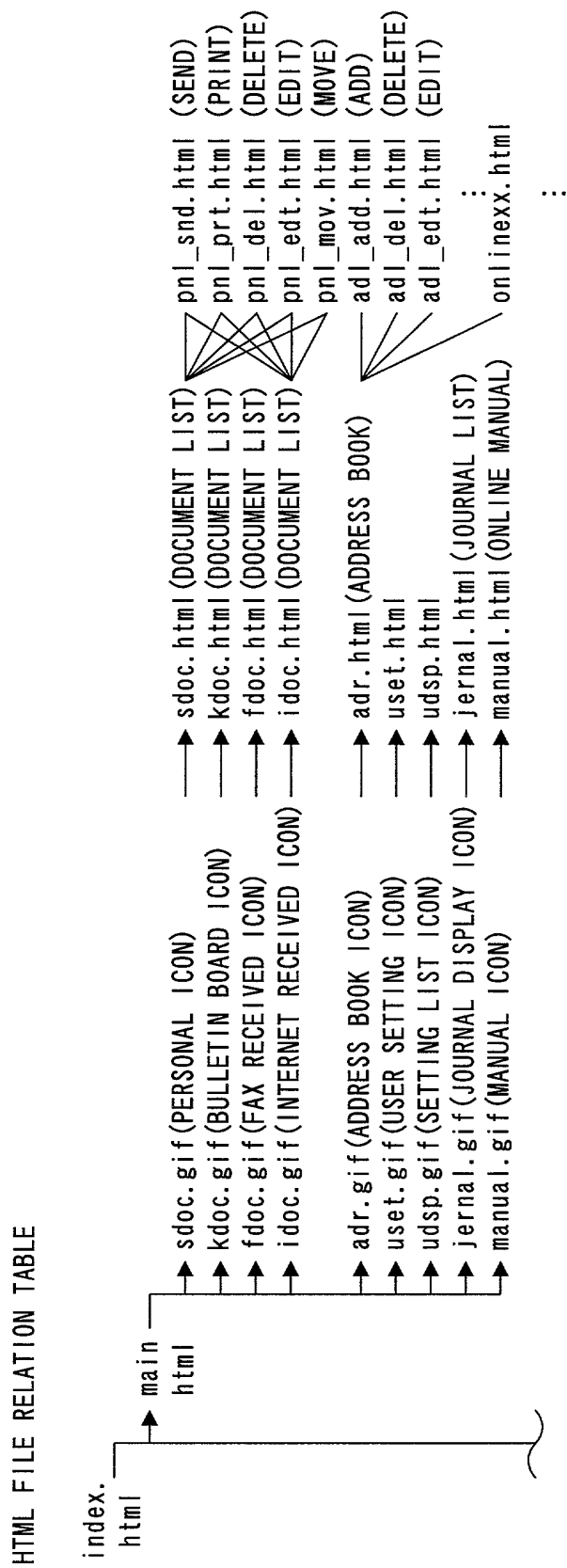


FIG. 10

HOMEPAGE MAIN PAGE

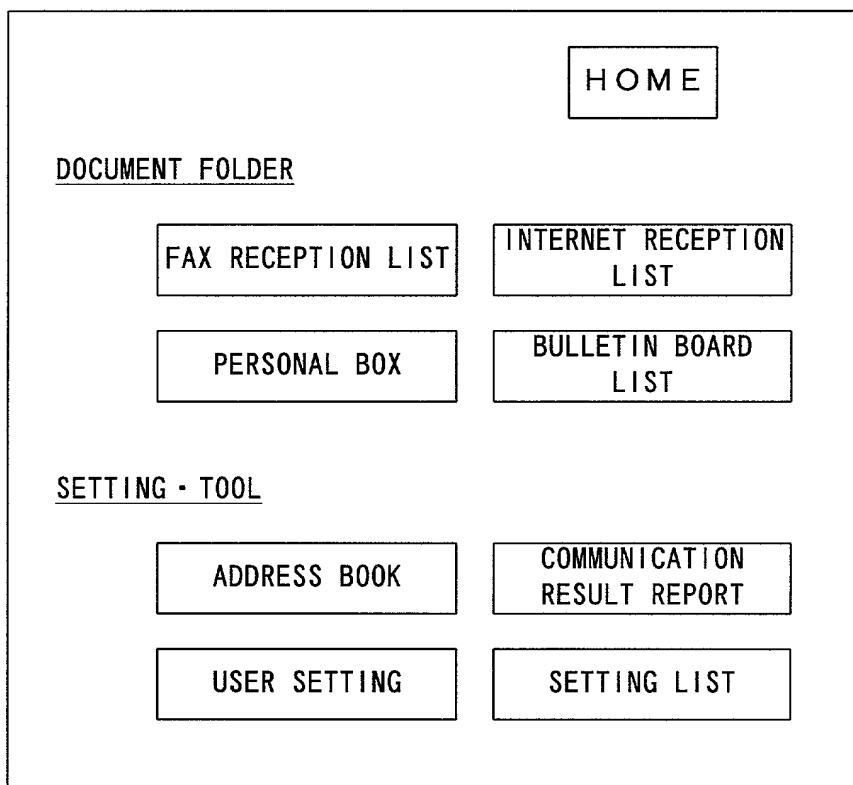


FIG. 11

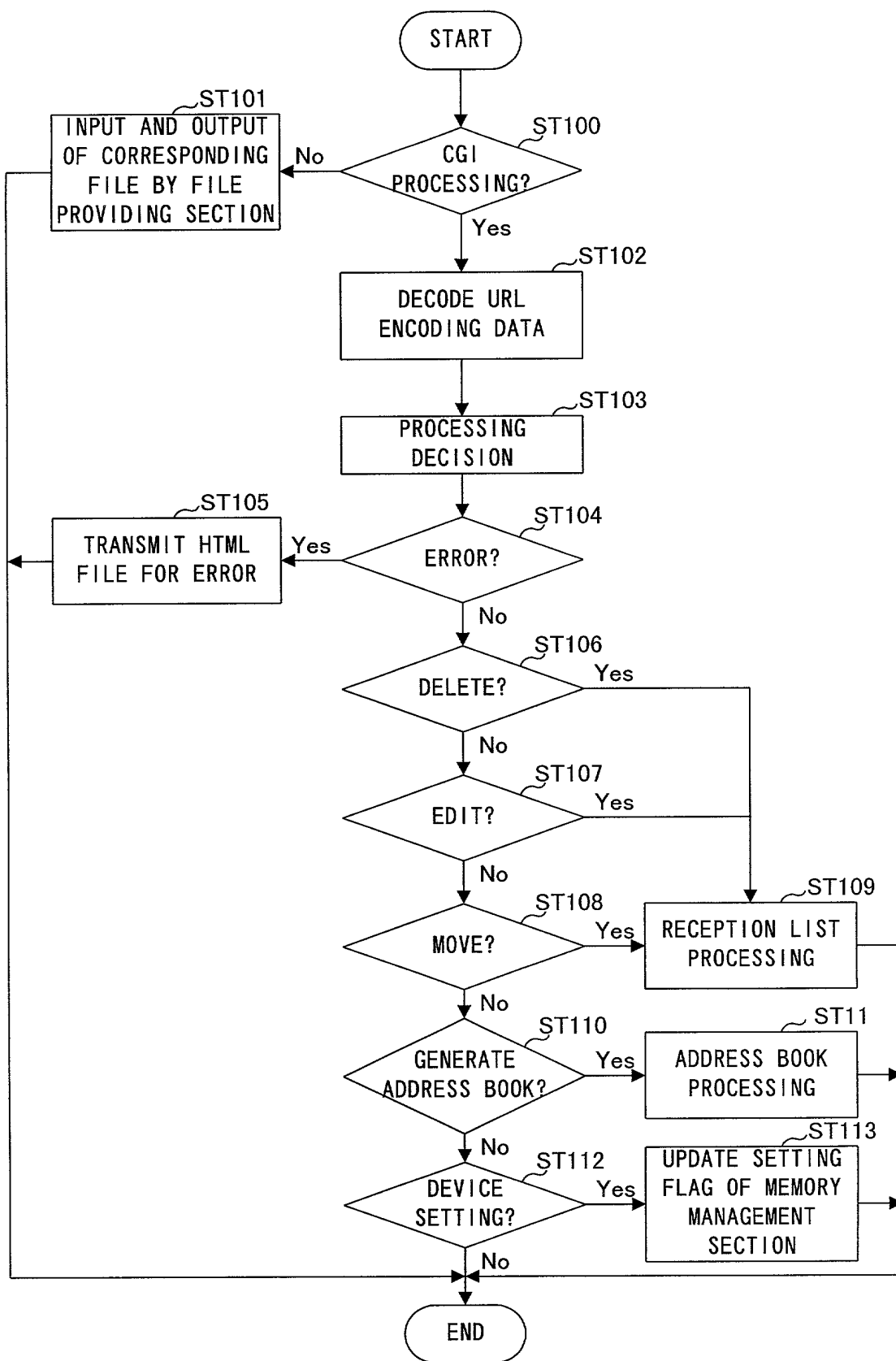


FIG. 12

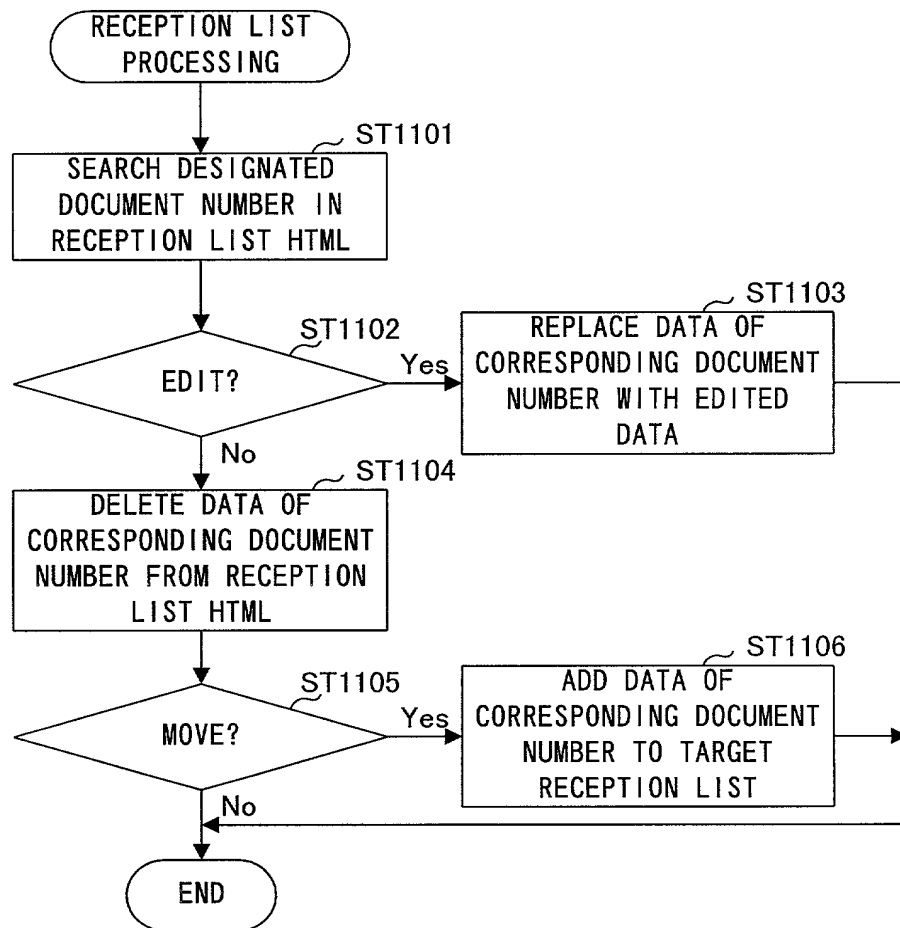


FIG. 13

HOME

DELETE

OBJECT FOLDER	INTERNET RECEPTION		Reload
DOCUMENT NUMBER	<input type="text"/>	(EN-SIZE)	

DETERMINE

RETRY

Close

FIG. 15

HOME

EDIT

OBJECT FOLDER	INTERNET RECEPTION		Reload
DOCUMENT NUMBER	00150, <input type="text"/>	(EN-SIZE)	
TITLE	<input type="text"/>		
SENDER	<input type="text"/>		

DETERMINE

RETRY

Close

FIG. 16

FIG. 17

HOME

MENU

ADD

DELETE

EDIT

ADDRESS BOOK

SELECT	NUMBER	NAME	TYPE	ADDRESS
<input type="checkbox"/>	1	x x x x	F	TELEPHONE NUMBER
<input type="checkbox"/>	2	x x x	M	MAIL ADDRESS
<input type="checkbox"/>	3	x x x x	M	MAIL ADDRESS
<input type="checkbox"/>	4	x x	F	TELEPHONE NUMBER

FIG. 18

ADD TO ADDRESS BOOK

NAME

TYPE

ADDRESS

DETERMINE

RETRY

Close

FIG. 19

DELETE FROM ADDRESS BOOK

NAME

ADDRESS

DETERMINE

RETRY

Close

FIG. 20

EDIT OF ADDRESS BOOK

NAME
ADDRESS

DETERMINE RETRY Close

FIG. 21

Parameter	Estimate	Standard Error	t-Statistic	p-Value
α_1	0.0000	0.0000	0.0000	1.0000
α_2	0.0000	0.0000	0.0000	1.0000
α_3	0.0000	0.0000	0.0000	1.0000
α_4	0.0000	0.0000	0.0000	1.0000
α_5	0.0000	0.0000	0.0000	1.0000
α_6	0.0000	0.0000	0.0000	1.0000
α_7	0.0000	0.0000	0.0000	1.0000
α_8	0.0000	0.0000	0.0000	1.0000
α_9	0.0000	0.0000	0.0000	1.0000
α_{10}	0.0000	0.0000	0.0000	1.0000
α_{11}	0.0000	0.0000	0.0000	1.0000
α_{12}	0.0000	0.0000	0.0000	1.0000
α_{13}	0.0000	0.0000	0.0000	1.0000
α_{14}	0.0000	0.0000	0.0000	1.0000
α_{15}	0.0000	0.0000	0.0000	1.0000
α_{16}	0.0000	0.0000	0.0000	1.0000
α_{17}	0.0000	0.0000	0.0000	1.0000
α_{18}	0.0000	0.0000	0.0000	1.0000
α_{19}	0.0000	0.0000	0.0000	1.0000
α_{20}	0.0000	0.0000	0.0000	1.0000
α_{21}	0.0000	0.0000	0.0000	1.0000
α_{22}	0.0000	0.0000	0.0000	1.0000
α_{23}	0.0000	0.0000	0.0000	1.0000
α_{24}	0.0000	0.0000	0.0000	1.0000
α_{25}	0.0000	0.0000	0.0000	1.0000
α_{26}	0.0000	0.0000	0.0000	1.0000
α_{27}	0.0000	0.0000	0.0000	1.0000
α_{28}	0.0000	0.0000	0.0000	1.0000
α_{29}	0.0000	0.0000	0.0000	1.0000
α_{30}	0.0000	0.0000	0.0000	1.0000
α_{31}	0.0000	0.0000	0.0000	1.0000
α_{32}	0.0000	0.0000	0.0000	1.0000
α_{33}	0.0000	0.0000	0.0000	1.0000
α_{34}	0.0000	0.0000	0.0000	1.0000
α_{35}	0.0000	0.0000	0.0000	1.0000
α_{36}	0.0000	0.0000	0.0000	1.0000
α_{37}	0.0000	0.0000	0.0000	1.0000
α_{38}	0.0000	0.0000	0.0000	1.0000
α_{39}	0.0000	0.0000	0.0000	1.0000
α_{40}	0.0000	0.0000	0.0000	1.0000
α_{41}	0.0000	0.0000	0.0000	1.0000
α_{42}	0.0000	0.0000	0.0000	1.0000
α_{43}	0.0000	0.0000	0.0000	1.0000
α_{44}	0.0000	0.0000	0.0000	1.0000
α_{45}	0.0000	0.0000	0.0000	1.0000
α_{46}	0.0000	0.0000	0.0000	1.0000
α_{47}	0.0000	0.0000	0.0000	1.0000
α_{48}	0.0000	0.0000	0.0000	1.0000
α_{49}	0.0000	0.0000	0.0000	1.0000
α_{50}	0.0000	0.0000	0.0000	1.0000
α_{51}	0.0000	0.0000	0.0000	1.0000
α_{52}	0.0000	0.0000	0.0000	1.0000
α_{53}	0.0000	0.0000	0.0000	1.0000
α_{54}	0.0000	0.0000	0.0000	1.0000
α_{55}	0.0000	0.0000	0.0000	1.0000
α_{56}	0.0000	0.0000	0.0000	1.0000
α_{57}	0.0000	0.0000	0.0000	1.0000
α_{58}	0.0000	0.0000	0.0000	1.0000
α_{59}	0.0000	0.0000		

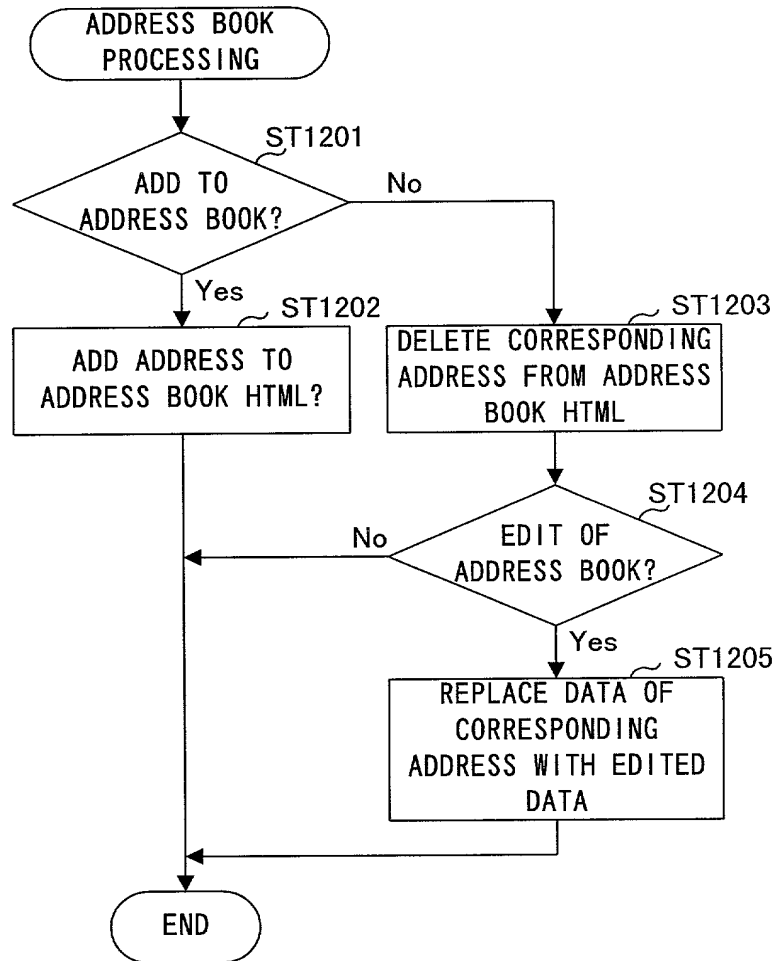


FIG. 22

FIG. 23

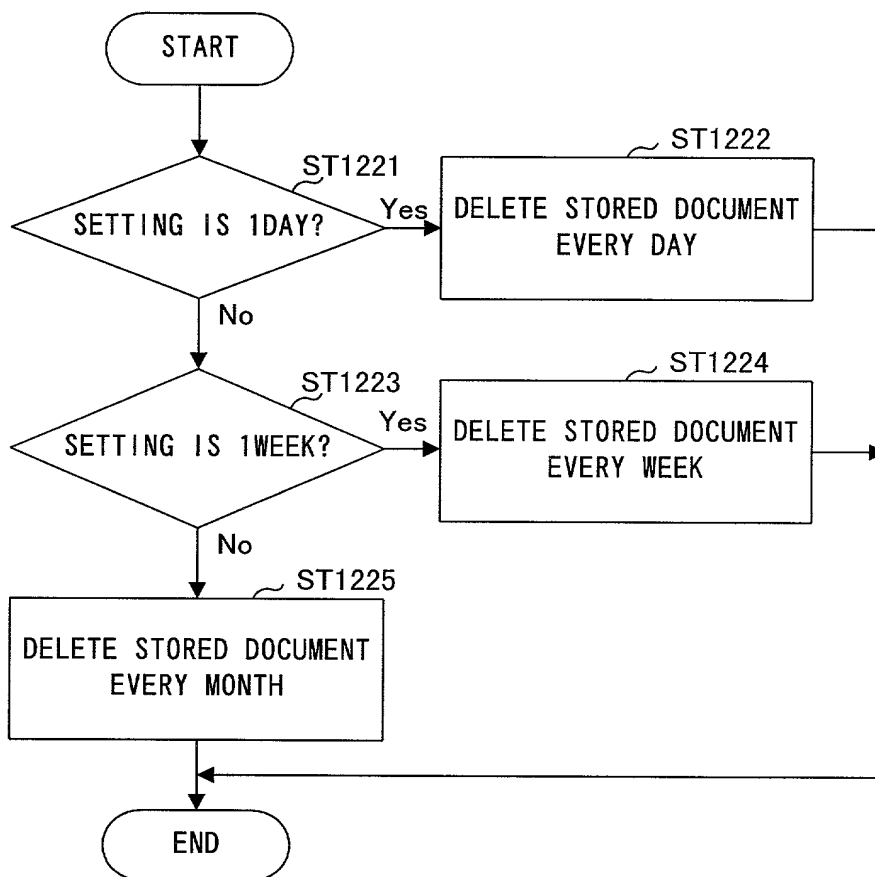


FIG. 24

Declaration and Power of Attorney For Utility or Design Patent Application

特許出願宣言書

Japanese Language Declaration

私は、下欄に氏名を記載した発明者として、以下のとおり宣言する:

私の住所、郵便の宛先および国籍は、下欄に氏名に続いて記載したとおりであり、

名称の発明に関し、請求の範囲に記載した特許を求める主題の本来の、最初にして唯一の発明者である(一人の氏名のみが下欄に記載されている場合)か、もしくは本来の、最初にして共同の発明者である(複数の氏名が下欄に記載されている場合)と信じ、

その明細書を

(該当するほうに印を付す)

ここに添付する。

____ 日に出願番号
____ 号として提出し、
____ 日に補正した。

(該当する場合)

私は、前期のとおりに補正した請求の範囲を含む前記明細書の内容を検討し、理解したことを陳述する。

私は、連邦規則法典第37部第1章第56条に従い、本題の審査に所要の情報を開示すべき義務を有することを認める。

私は合衆国法典第35部第119条(a-d)項又は第365条(b)項に基づく、下記の外国特許出願又は発明者証出願、或いは第365条(a)項に基づく、少なくとも米国以外の1ヶ国を指名したPCT国際出願の外国優先権利益を主張し、更に優先権の主張に係わる基礎出願の出願日前の出願日を有する外国特許出願、又は発明者証出願或いはPCT国際出願を以下に明記する:

Prior foreign applications
先の外国出願

JP10-372959	JAPAN	28/December/1998
(Number) (番号)	(Country) (国名)	(Day/Month/Year Filed) (出願の年月日)
____	____	____
(Number) (番号)	(Country) (国名)	(Day/Month/Year Filed) (出願の年月日)
____	____	____
(Number) (番号)	(Country) (国名)	(Day/Month/Year Filed) (出願の年月日)
____	____	____

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

NETWORK FACSIMILE APPARATUS

the specification of which

(check one)

☒ is attached hereto.

☐ was filed on _____ as

Application No. _____

and was amended on _____

(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code §119(a-d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the "No" box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed:

Priority claimed
優先権の主張

<input checked="" type="checkbox"/>	<input type="checkbox"/>
Yes あり	No なし
<input type="checkbox"/>	<input type="checkbox"/>
Yes あり	No なし
<input type="checkbox"/>	<input type="checkbox"/>
Yes あり	No なし

Japanese Language Utility or Design Patent Application Declaration

☐ その他の外国特許出願番号は別紙の追補優先権欄にて記載する。

☐ Additional foreign application numbers are listed on a supplemental priority sheet attached hereto.

私は、合衆国法典第35部第119条(e)項に基づき、下記の合衆国仮特許出願の利益を主張する。

I hereby claim the benefit under Title 35, United States Code §119(e) of any United States provisional application(s) listed below.

(Number)
(番号)

(Day/Month/Year Filed)
出願の年月日

(Number)
(番号)

(Day/Month/Year Filed)
出願の年月日

(Number)
(番号)

(Day/Month/Year Filed)
出願の年月日

☐ その他の合衆国仮特許出願番号は別紙の追補優先権欄にて記載する。

☐ Additional provisional application numbers are listed on a supplemental priority sheet attached hereto.

私は、合衆国法典第35部第120条に基づく下記の合衆国特許出願、又は第365条(c)項に基づく合衆国を指名したPCT国際出願の利益を主張し、本願の請求の範囲各項に記載の主題が合衆国法典第35部第112条第1項規定の様式で、先の合衆国特許出願又はPCT国際出願に開示されていない限度において、先の出願の出願日と本願の国内出願日又はPCT国際出願日の間に有効となった連邦規則法典第37部第1章第56条に記載の特許要件に所要の情報を開示すべき義務を有することを認める。

I hereby claim the benefit under Title 35, United States Code §120 of any United States application(s), or §365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

(Application No.)
(出願番号)

(Day/Month/Year Filed)
(出願の年月日)

(現況) (Status)
(特許済み、係属中、放棄済み) (Patented, pending, abandoned)

(Application No.)
(出願番号)

(Day/Month/Year Filed)
(出願の年月日)

(現況) (Status)
(特許済み、係属中、放棄済み) (Patented, pending, abandoned)

☐ その他の合衆国又は国際特許出願番号は別紙の追補優先権欄にて記載する。

☐ Additional U.S. or international application numbers are listed on a supplemental priority sheet attached hereto.

私は、ここに自己の知識にもとずいて行った陳述がすべて真実であり、自己の有する情報および信ずるところに従って行った陳述が真実であると信じ、さらに故意に虚偽の陳述等を行った場合、合衆国法典第18部第1001条により、罰金もしくは禁錮に処せられるか、またはこれらの刑が併科され、またかかる故意による虚偽による陳述が本願ないし本願に対して付与される特許の有効性を損なうことがあることを認識して、以下の陳述を行ったことを宣言する。

私、下記署名者は、ここに記載の米国弁護士または代理人に本出願に関し特許商標庁にて取られるいかなる行為に関して、同米国弁護士又は代理人が、私に直接連絡なしに私の外国弁護士或いは法人代表者からの指示を受け取り、それに従うようここに委任する。この指示を出す者が変更の場合には、ここに記載の米国弁護士又は代理人にその旨通知される。

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

The undersigned hereby authorizes the U.S. attorney or agent named herein to accept and follow instructions from either his foreign patent agent or corporate representative, if any, as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned. In the event of a change in the persons from whom instructions may be taken, the U.S. attorney or agent named herein will be so notified by the undersigned.

Japanese Language Utility or Design Patent Application Declaration

委任状： 私は、下記発明者として、下記に明記された顧客番号を伴う以下の弁護士又は、代理人をここに選任し、本願の手続きを遂行すること並びにこれに関する一切の行為を特許商標庁に対して行うことを委任する。そして全ての通信はこの顧客番号宛に発送される。

顧客番号 7055

現在選任された弁護士は下記の通りである。

Neil F. Greenblum
Bruce H. Bernstein
Roger P. Glass
James L. Rowland
Arnold Turk

POWER OF ATTORNEY: As a named inventor, I hereby appoint the attorney(s) and/or agent(s) associated with the Customer Number provided below to prosecute this application and transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to that Customer Number.

CUSTOMER NUMBER 7055

The appointed attorneys presently include:

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Reg. No. 29,027
Reg. No. 30,841
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唯一のまたは第一の発明者の氏名	Full name of sole or first inventor Junichi IIDA
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国籍	Citizenship Japan
郵便の宛先	Post Office Address 3-1-21-403, Gumisawa, Totsuka-ku, Yokohama-shi, Kanagawa 245-0061 Japan
第2の共同発明者の氏名(該当する場合)	Full name of second joint inventor, if any
同第2共同発明者の署名 日付	Second Inventor's signature Date
住所	Residence
国籍	Citizenship
郵便の宛先	Post Office Address

(第六またはそれ以降の共同発明者に対しても同様な情報および署名を提供すること。)

(Supply similar information and signature for third and subsequent joint inventors.)